



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

7060004

142548

SEP 26 1994

REPLY TO THE ATTENTION OF:

MEMORANDUM

HSE-5J

DATE:

SUBJECT: ACTION MEMORANDUM: Request for a Time-Critical Removal Action at Sauget Area 1, Site G, Sauget, St. Clair County, Illinois (Site ID# 4V)

FROM: Sam Borries, On-Scene Coordinator *Donald Bruce*
for Emergency Response Section II

THRU: Jodi L. Traub, Associate Division Director
Office of Superfund

TO: William E. Muno, Director
Waste Management Division

I. PURPOSE

The purpose of this memorandum is to request and document approval to expend up to \$1,902,000 to abate an imminent and substantial threat to public health and the environment which exists at the Sauget Area 1, Site G, in St. Clair County, Sauget, Illinois.

The response action proposed herein will mitigate threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous wastes located at the site. Site contaminants consist of benzene, ethylbenzene, toluene, xylene, 1,2,4-trichlorobenzene, polychlorinated biphenyls (PCBs), dioxin, endrin, endrin aldehyde, heptachlor, and 4,4'-DDD. Proposed removal actions include assessment of the chemical hazards on the site, stabilization/solidification of exposed surface hazardous materials, extinguish any burning areas remaining on/in the landfill, treatment of surface water runoff, contaminated sediment consolidation, consolidation of off-site contaminated soil, placement of all consolidated material under an on-site clay cap. Continuing threats of release require that this removal be classified as time critical. The project will require an estimated 60 on-site working days to complete.

This site is currently being considered for inclusion on the National Priorities List.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID #ILD981953623

Site G is one of twelve sites compiled to make the Sauget Area 1 sites. It is a partially covered industrial waste landfill approximately 4.5 - 5.0 acres in size and is currently fenced with a six foot barbed wire chain link fence. The surface of Site G is heavily vegetated and littered with demolition debris, metal scrap, general refuse, and deteriorated drums of industrial wastes. Two small pits are located in the northeast and east-central portions of the site. Oily and tar-like wastes, along with scattered corroded drums, were observed in these areas. A mounded area was observed in the western portion of the site. Protruding from these mounds were several corroded drums. A large depression exists in the south-central portion of the site, which is immediately south of the mounded area. Surface runoff in this area flows toward the depression. This depression is currently filled with water and its boundaries extend beyond the fenced boundary of the landfill.

A number of investigations have taken place at Site G. In October of 1984, the Illinois Environmental Protection Agency (IEPA) conducted inspections in order to determine the scope of proposed cleanup work at the site. Analytical results of samples taken from the oily pits on-site revealed a variety of organic compounds.

Ecology & Environment, Inc. (E&E), under an IEPA contract, conducted an Expanded Site Investigation (ESI) of the Sauget Area sites from 1985 to 1987 and in May of 1988 submitted an ESI Report to IEPA, detailing assessment information from the Sauget Area sites. In May of 1987, the U.S. Environmental Protection Agency (U.S. EPA) conducted an emergency response at Site G and collected samples, results of which indicated that high levels of organic contamination exist in surficial soils. As a result, Monsanto Chemical Company, Cerro Copper Products Company, and Wiese Engineering under U.S. EPA supervision, constructed a chain-link fence surrounding Site G. According to site file information, aliphatic hydrocarbons, chloroanilines, chlorobenzenes, chlorophenols, PCBs, phenanthrene, and pyrene were identified at Site G.

According to the Sauget Fire Department (SFD) fire chief, Site G has caught fire and burned four times since the middle of March 1994. The SFD responded to extinguish Site G fires on March 18th, 21st, 22nd and June 3rd, 1994. Spontaneous combustion is believed to have caused the fires, however, it has been reported by a local business that a cigarette butt thrown onto the landfill may have caused the initial fire in 1994. Response actions taken by the SFD have been to lay out hoses and pump water onto the landfill. During the June 3rd response, a 2 1/2

inch hose (approximately 250 gallons/minute) was placed on the landfill and allowed to flow for two days in an effort to prevent future fires. U.S. EPA and IEPA returned to Site G to assess the potential threat to human health and the environment as a result of these fires.

Soil samples collected during a May 27, 1994 site assessment revealed high levels of PCBs (15,000 ppm) and Dioxin total equivalence (>137 ppb) within site fenced boundaries. Total equivalence Dioxin levels outside fenced boundaries range up to 21 ppb exceeding recommended clean up levels of 1.0 ppb and 10 ppb for residential and industrial areas, respectively. Other contaminants include endrin (190 ppm), naphthalene (5,200E ppm), pentachlorophenol (280J ppm), phenanthrene (340J), 4-chloroaniline (1,700 ppm), 2,4,6-trichlorophenol (200J ppm), and n-nitro-sodiphenyl-amine (200J ppm).

Air samples were collected three days after the June 3rd fire was extinguished by the SFD. Smoldering hot spots were noted during the June 6, 1994 air sample collection. On-site sample data revealed contaminate concentrations of acetone (87 ppb), 2-butanone (30 ppb), benzene (130 ppb), toluene (2.1 ppb), ethylbenzene (3.0 ppb), total xylenes (14 ppb), 1,2,4-trichlorobenzene (35 ppb).

Current file information indicates that the property of Site G is owned by Cerro Copper Products Company, Wiese Engineering Company, Emily Hankins, Myrtle Hankins, and Moto Mart.

III. THREATS TO PUBLIC HEALTH OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The conditions at the Sauget Area 1, Site G present an imminent and substantial threat to human health, welfare and the environment and meet the criteria for a removal action as stated in the National Contingency Plan (NCP), 40 CFR, Section 300.415(b)(2), specifically:

- a) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;**

Analytical results from the soil samples collected on May 27, 1994 indicate the presence of hazardous substances at the Sauget Area 1, Site G. People who pass by or use the parking area along the western boundary of the landfill have the potential to come in contact with elevated dioxin levels outside the fenced boundary of the landfill. The potential exists for trespassers, vandals, or scavengers to come in contact with hazardous substances, especially from contaminated soils and from deteriorated drums in exposed areas. Plants and animals can come in

contact with hazardous substances and can pass along contaminants via the food chain to larger animal species, and potentially to humans.

- b) **High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;**

Soil samples collected by TAT from on-site and along the site perimeter contained high levels of dioxin, PCBs, pesticides, and semi-volatile compounds. During fire events, contaminated soil and combustion materials can migrate via drainage paths off-site to navigatable waterways, including the water-filled depression and Dead Creek. Dioxins and PCBs have a high affinity for soils and can be carried via airborne dusts off-site to nearby residential and industrial areas.

- c) **Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;**

All contaminants on-site are found outdoors under constant exposure to the weather. Exposure to the elements can cause excessive degradation of remaining on-site waste containers, which could cause further migration of contaminants if hazardous substances leaked. Continued exposure to the elements could lead to further off-site migration of surface contamination.

- d) **Threat of fire or explosion;**

Deteriorated and scorched drums were observed scattered on the landfill surface. The potential for a continued fire exists. According to the Sauget Fire Department they have been called to the site four times since the middle of March to extinguish site fires. Continued burning of the site will increase the likelihood of contaminants becoming airborne and may affect the nearby business and residential population.

IV. ENDANGERMENT DETERMINATION

The presence of hazardous substances on the site represents an imminent and substantial endangerment to local business and residents. PCBs and Dioxins are present in surficial soils at concentrations which exceed health based levels. Therefore, given the site conditions, the nature of the suspected hazardous substances on-site, and the potential exposure pathways described in Section II and III above, actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

Removal activities will require approximately 60 10-hour on-site working days to complete. The threats posed by identified drums of hazardous waste materials meet the criteria listed in Section 300.415(b)(2) of the NCP and are consistent with any removal or remedial action which may be required. To mitigate threats posed by drums of hazardous material on site the following actions are proposed:

- 1) Develop and implement a Health and Safety Plan to cover removal activities;
- 2) Develop and implement a sampling and analytical program designed to identify contaminated material;
- 3) Extinguish any remaining fires by an appropriate means;
- 4) Consolidate and/or remove non-hazardous waste and/or brush and debris;
- 5) Solidify/stabilize semi-solid material in tar pits;
- 6) Remove water in depression and treat if necessary;
- 7) Backfill on-site depressions and bring up to grade;
- 8) Properly close/abandon any monitoring wells that interfere with cap placement;
- 9) Consolidate contaminated off-site soils and sediment on-site to be covered by the cap;
- 10) Level site to grade for cap placement;
- 11) Place a 2-foot clay impermeable layer below a frost zone layer with a 6-inch topsoil layer; and
- 12) Seed topsoil and implement necessary erosion control measures to prevent cap erosion.

Detailed cleanup contractor costs are presented in Attachment 1. The requested cost adjustment estimated for this Action Memo is summarized in the Estimated Project Cost Table below:

Estimated Project Cost Table

EXTRAMURAL COSTS:

Cleanup Contractor	\$1,226,000
Contingency (15%)	<u>184,000</u>
Subtotal	\$1,410,000
Total, TAT, including multiplier costs	150,000
Extramural Subtotal	\$1,560,000
Extramural Contingency (15%)	<u>234,000</u>
TOTAL EXTRAMURAL COSTS:	\$1,794,000

INTRAMURAL COSTS:

U.S. EPA Direct Costs (\$30/hr x 900 Regional + 90 HQ hrs)	\$ 30,000
U.S. EPA Indirect Costs (\$53/hr x 900 Regional hrs)	78,000
TOTAL INTRAMURAL COSTS:	\$ <u>108,000</u>
TOTAL PROJECT CEILING ESTIMATE:	\$1,902,000

The response actions described in this memorandum directly address actual or threatened releases of hazardous substances, pollutants or contaminants within the Village of Sauget, Illinois which may pose an imminent and substantial endangerment to public health and safety, and to the environment and are consistent with the long-term remedial action anticipated for this site. The response actions described in this memorandum do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

The On-Scene Coordinator has begun planning for provision of post-removal site control, consistent with the provisions of the NCP set forth at 40 C.F.R. Section 300.415(k).

All applicable or relevant and appropriate requirements (ARARs) of Federal law will be complied with to the extent practicable. A letter has been sent to Jim Jansen of the IEPA requesting that

it identify State ARARs. Any State ARARs identified in a timely manner for this removal action will be complied with to the extent practicable. In accordance with the revised NCP, 40 CFR, Section 300.825(a)(1), the response from the state to the request for ARARs will be added to the administrative record for this site once the response has been received and evaluated.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed or non-action may result in increased likelihood of direct contact threat or further contamination which would threaten the adjacent residences and businesses or the environment. Continued exposure to the elements would allow further migration and deterioration of existing containment, leading to a potential release of site contaminants.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with this site.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this site is contained in an Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action related to the Sauget Area 1, Site G, in Sauget, St. Clair County, Illinois, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the site. Conditions at the site continue to meet the NCP, 40 CFR, Section 300.415(b)(2) criteria for a removal action and I recommend your approval of the proposed removal action. The estimated removal project costs are \$1,902,000 of which up to \$1,644,000 could be used for extramural clean-up contractor costs. You may indicate your decision by signing below.

APPROVE:

Wm. E. Myers
Director, Waste Management Division

DATE:

9/27/94

DISAPPROVE:

Director, Waste Management Division

DATE:

Enforcement Addendum

Attachments:

1. Detailed Cleanup Contractor Estimate
2. Administrative Record Index

CC: E. Watkins, OS-210

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Tom Crause

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T. Lesser, P19-J
D. Crume, MF-10J
EERB Read File (M. Johnson)
EERB Delivery Order File (Mary Elaine Gustafson)
EERB Site File (Earl Brenneman, SF Central File Room)
W. Massie, Contracting Officer, MC10-J
S. Borries, OSC, HSE-5J
T. Martin, ORC, CS-3T
P. Schwebke, Enforcement Specialist

ENFORCEMENT ADDENDUM

Redacted - not relevant to the selection of the removal action.

ATTACHMENT 1

DETAILED CLEANUP CONTRACTOR COST ESTIMATE

**SAUGET AREA 1, SITE G
SAUGET, ILLINOIS**

The estimated additional cleanup contractor costs are as follows:

Personnel	\$402,000
Equipment	91,000
Materials	473,000
Subcontractors	260,000
Waste Transportation	N/A
Waste Disposal	<u>N/A</u>
TOTAL	\$1,226,000

ATTACHMENT 2

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION**

**ADMINISTRATIVE RECORD
FOR
SAUGET AREA 1
SITE G LANDFILL
SAUGET, ILLINOIS**

<u>DATE</u>	<u>AUTHOR</u>	<u>RECIPIENT</u>	<u>TITLE/DESCRIPTION</u>	<u>PAGES</u>
5/88	Ecology and Environment	IEPA	Expanded Site Investigation Report, Dead Creek Proj. Sites, Final Report, Vol, 1 of 2.	478
5/88	Ecology and Environment	IEPA	Expanded Site Investigation Report, Dead Creek Proj. Sites, Final Report, Vol, 2 of 2.	557
7/29/94	Ecology and Environment	U.S. EPA	Removal Action Report, Sauget Area 2: Site Q, w/ site photographs, analytical data package, and cost projection.	53
8/ /94	Borries, S., U.S. EPA	Muno, W., U.S. EPA	Action Memorandum (Pending)	12